

N65928.AR.002672
NTC ORLANDO
5090.3a

SOURCE REMOVAL REPORT FOR BUILDING 2426 MCCOY ANNEX NTC ORLANDO FL
5/1/1999
HARDING LAWSON ASSOCIATES

**SOURCE REMOVAL REPORT
BUILDING 2426
McCOY ANNEX**

**NAVAL TRAINING CENTER
ORLANDO, FLORIDA**

Unit Identification Code: N65928

Contract No.: N62467-89-D-0317/107

Prepared by:

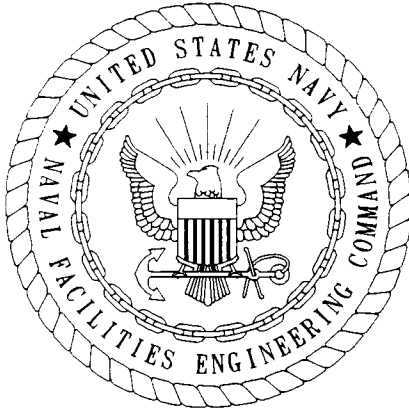
**Harding Lawson Associates
2590 Executive Center Circle, East
Tallahassee, Florida 32301**

Prepared for:

**Department of the Navy, Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
North Charleston, South Carolina 29418**

Nick Ugolini, Code 1843, Engineer-in-Charge

May 1999



CERTIFICATION OF TECHNICAL
DATA CONFORMITY (MAY 1987)

The Contractor, Harding Lawson Associates, hereby certifies that, to the best of its knowledge and belief, the technical data delivered herewith under Contract No. N62467-89-D-0317/107 are complete and accurate and comply with all requirements of this contract.

DATE: May 27, 1999

NAME AND TITLE OF CERTIFYING OFFICIAL: John Kaiser
Task Order Manager

NAME AND TITLE OF CERTIFYING OFFICIAL: Manuel Alonso, P.G.
Project Technical Lead

(DFAR 252.227-7036)

TABLE OF CONTENTS

Source Removal Report
Building 2426, McCoy Annex
Naval Training Center
Orlando, Florida

<u>Chapter</u>	<u>Title</u>	<u>Page No.</u>
1.0	INTRODUCTION	1-1
1.1	SITE LOCATION AND BACKGROUND INFORMATION	1-1
1.2	SCOPE OF WORK	1-4
2.0	FIELD ACTIVITIES	2-1
2.1	TANK CLOSURE	2-1
2.2	SOIL EXCAVATION	2-1
2.3	TRANSPORT AND DISPOSAL OF SOIL	2-1
2.4	SITE RESTORATION	2-1
3.0	GROUNDWATER SAMPLING AND ANALYSIS	3-1
3.1	TEMPORARY WELL INSTALLATION	3-1
3.2	GROUNDWATER SAMPLING AND ANALYSIS	3-1
4.0	CONCLUSIONS AND RECOMMENDATIONS	4-1
5.0	PROFESSIONAL REVIEW CERTIFICATION	5-1

REFERENCE

APPENDICES

- Appendix A: Photographs
- Appendix B: Preburn Laboratory Analytical Reports
- Appendix C: Postburn Laboratory Analytical Reports and Certificate of Materials Recycling
- Appendix D: Groundwater Sampling Form
- Appendix E: Groundwater Laboratory Analytical Reports and Chain-of-Custody-Records

LIST OF FIGURES

Source Removal Report
Building 2426, McCoy Annex
Naval Training Center
Orlando, Florida

<u>Figure</u>	<u>Title</u>	<u>Page No.</u>
1-1	Site Vicinity Map	1-2
1-2	Site Plan	1-3
2-1	Excavation and Sampling Location Plan	2-2
3-1	Typical Temporary Monitoring Well Construction Details	3-2

LIST OF TABLES

<u>Table</u>	<u>Title</u>	<u>Page No.</u>
2-1	Summary of Organic Vapor Analysis, February 25, 1999	2-3

GLOSSARY

AST	aboveground storage tank
bls	below land surface
FL-PRO	Florida-Petroleum Residual Organics
HLA	Harding Lawson Associates
OVA	organic vapor analyzer
PWC	Public Works Center
PVC	polyvinyl chloride
SAR	Site Assessment Report
SRA	Source Removal Activities
TRPH	total recoverable petroleum hydrocarbons
USEPA	U.S. Environmental Protection Agency
yd ³	cubic yard

1.0 INTRODUCTION

1.1 SITE LOCATION AND BACKGROUND INFORMATION. Harding Lawson Associates (HLA), was contracted by Southern Division, Naval Facilities Engineering Command to document the source removal activities (SRA) associated with petroleum contamination at Building 2426. SRAs included excavation and disposal of petroleum-impacted soil from the former heating oil tank. Building 2426 is located in the southeast section of the Main Base, Naval Training Center (NTC) in Orlando, Orange County, Florida (Figure 1-1).

Building 2426 (Bachelor Officers Quarters) is located on Iwo Jima Street in the east-central part of the Main Base. Figure 1-1 shows the site location and the surrounding area. The site lies within the northwest part of Section 21, Township 22 South and Range 30 east.

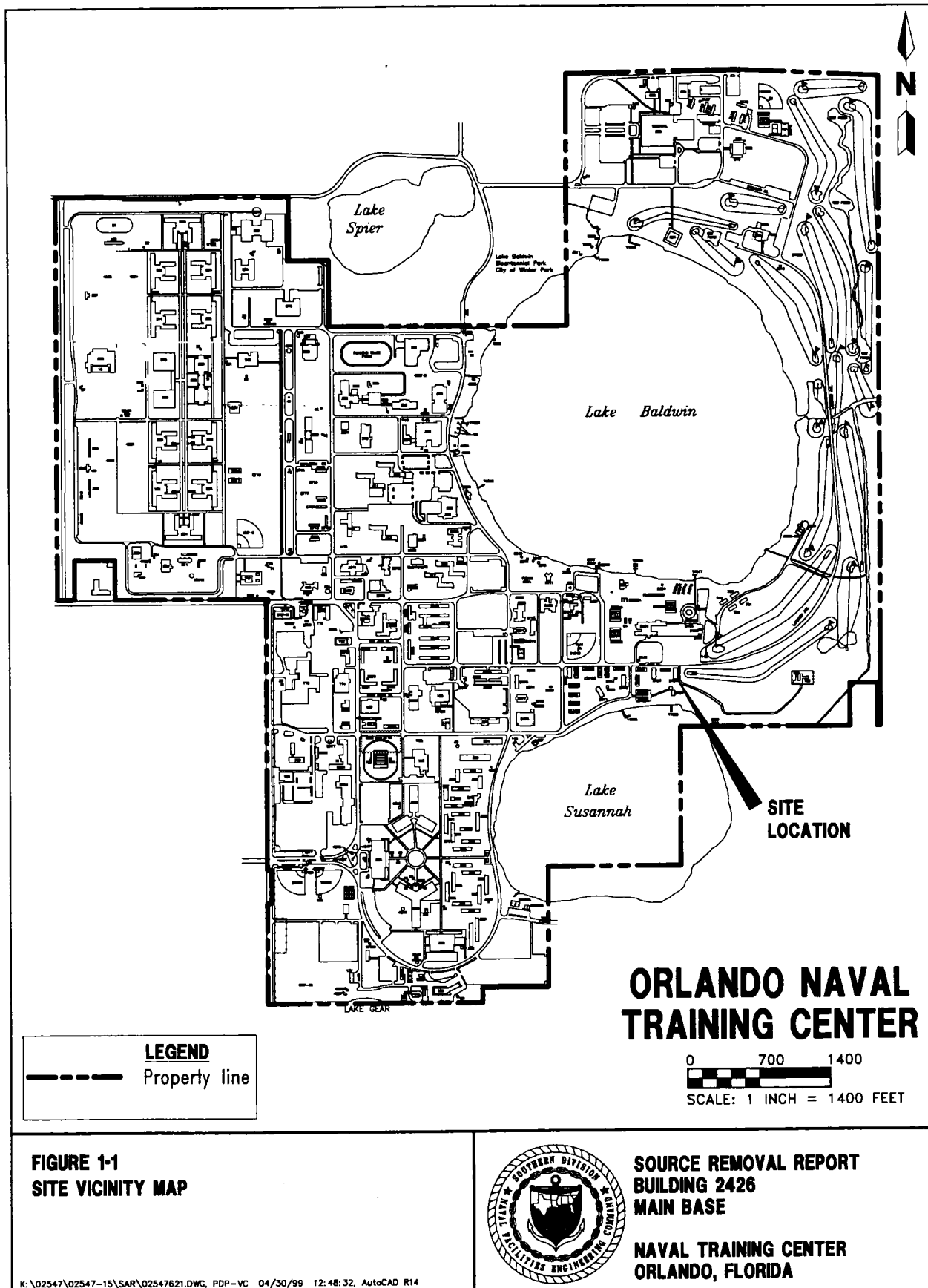
Building 2426 is a one-story building constructed of concrete block with a peaked wood-frame roof covered with shingles. This 2,121 square-foot building was constructed in 1943 and housed up to four visiting Navy officers. Based upon a review of aerial photographs and site records, the area was unimproved woods and open fields prior to the building construction.

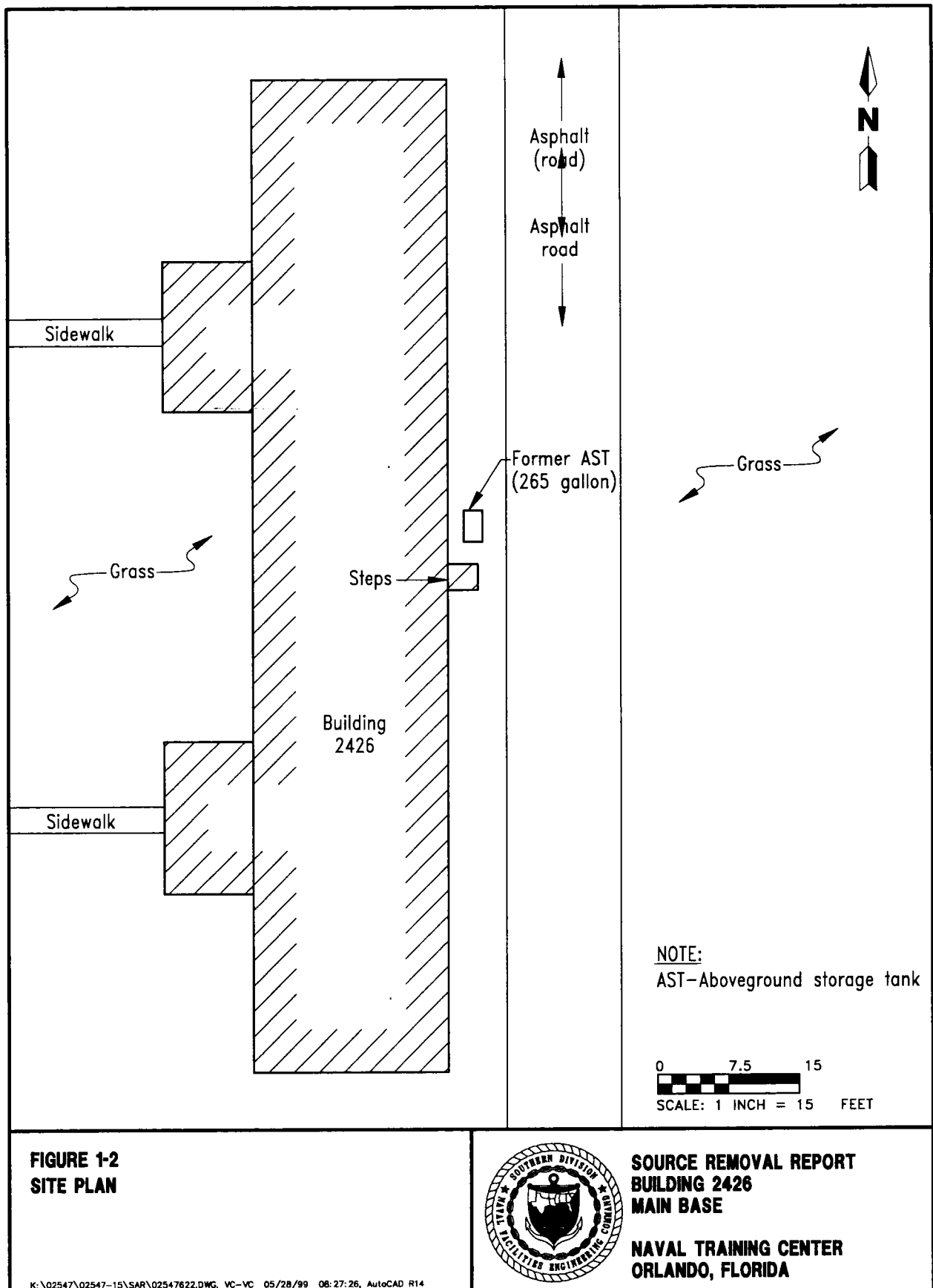
One petroleum storage tank system was operational at Building 2426. The system was located at the east side of the building and consisted of a 265-gallon aboveground storage tank (AST) and associated piping that stored and provided heating fuel for the building's heating system. The location of the former petroleum storage tank system is shown on Figure 1-2.

The AST was removed by the Navy Public Works Center (PWC), Pensacola, on November 4, 1996. One temporary monitoring well was installed in the center of the former AST area. Laboratory analytical results showed evidence of petroleum impact to groundwater at levels exceeding State of Florida cleanup target levels. In addition, soil samples were collected from one soil boring completed in the former AST area and screened with an organic vapor analyzer (OVA). Evidence of petroleum impact to soil was detected within the former tank area. Approximately 2 cubic yards (yd³) of petroleum-impacted soil was removed during the tank closure. The Tank Closure Assessment Report for Building 2426 recommended preparation of a site assessment report (SAR) for the site.

A SAR was completed for the site on May 22, 1998. The SAR recommended the removal of petroleum-impacted soil and sampling of groundwater following the soil excavation.

Petroleum-impacted soil excavation activities were conducted on February 25, 1999. This report summarizes activities associated with the removal of petroleum-impacted soil at Building 2426. Prior to conducting the SRAs, HLA informed the Florida Department of Environmental Protection of the planned removal through information provided during the Orlando Partnering Team meeting.





1.2 SCOPE OF WORK. The scope of work performed during the SRA included the following tasks:

- documented the excavation of petroleum-impacted soil,
- conducted environmental sampling (OVA screening) to determine the extent of excessively contaminated soil to be transported to a stationary thermal treatment facility,
- installation of a temporary groundwater monitoring well in the excavated area,
- obtained and analyzed a groundwater sample from the temporary monitoring well in the excavated area to assess petroleum-impact to the groundwater, and
- prepared a Source Removal Report (SRR) describing all field activities, providing the supplemental information and recommendations for the site.

2.0 FIELD ACTIVITIES

2.1 TANK CLOSURE. The AST was removed by the Navy PWC, Pensacola, on November 4, 1996. Evidence of petroleum impact to soil was detected within the former tank area. Approximately 2 yd³ of petroleum-impacted soil were removed.

2.2 SOIL EXCAVATION. The SRA was conducted on February 25, 1999. Petroleum-impacted soil that exhibited corrected organic vapor readings of 50 parts per million or greater was excavated as excessively contaminated soil.

The excavation was terminated at approximately eight feet below land surface (bls). Figure 2-1 shows the excavated area and soil sample locations collected during the SRA. Photographs of the SRAs are included in Attachment A.

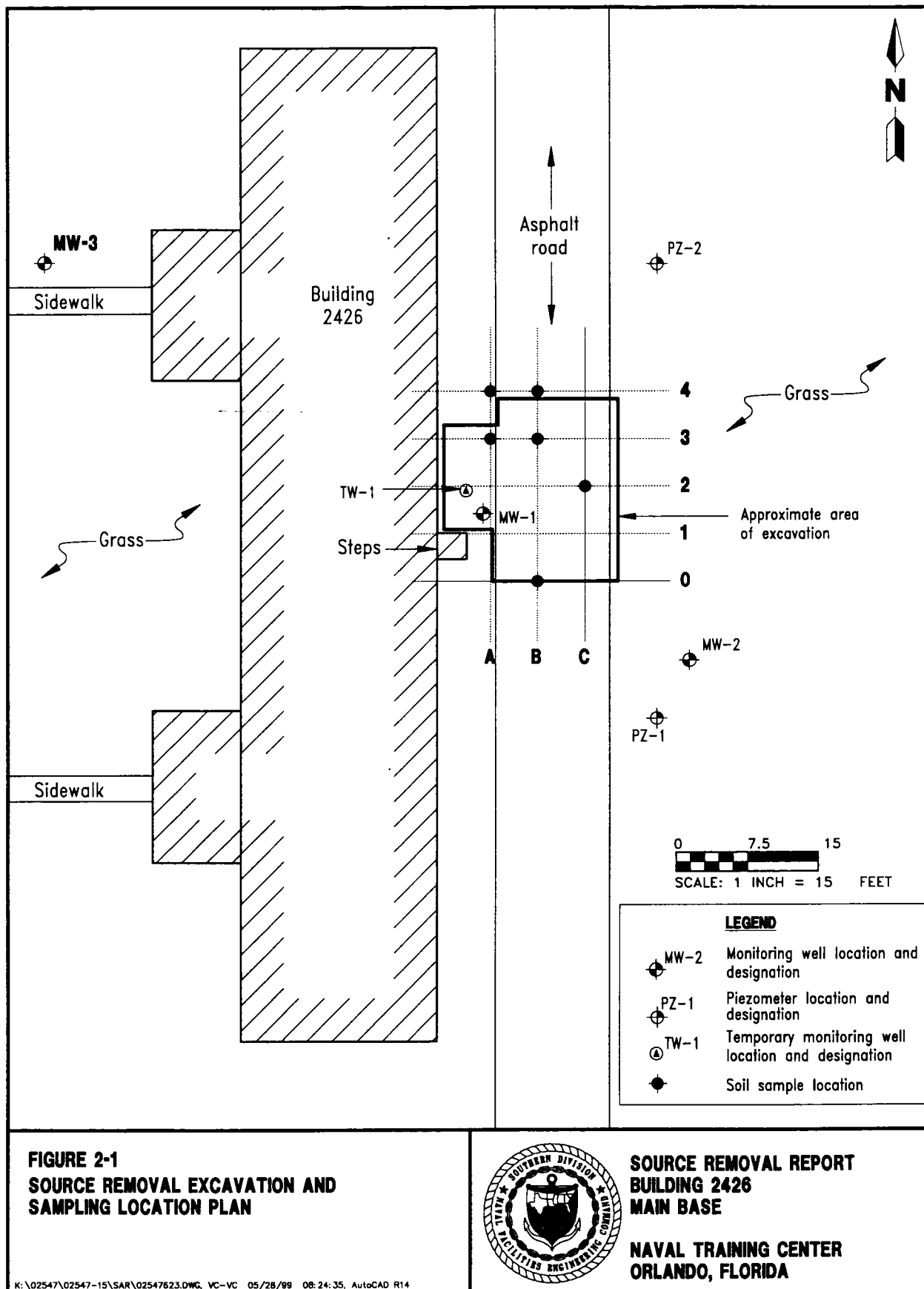
An OVA equipped with portable flame ionization detector (Foxboro-128) was used to screen soil samples during the excavation. A grid pattern was used to mark the soil sample locations (Figure 2-1). Organic vapor measurements of soil sample headspace were performed in samples collected from depths of 2, 4, and 6 feet bls following guidelines established in Chapter 62-770.200, Florida Administrative Code (FAC). Organic vapor concentration readings corresponding to the sample locations and depth intervals for February 25, 1999, are summarized in Table 2-1.

The excavated soil was placed on and covered with thick plastic, stockpiled onsite, then transported to Soil Treatment Services, Inc. of Kissimmee for thermal treatment. Approximately 52.7 tons (37.1 yd³) of excessively contaminated soil was excavated from the site.

2.3 TRANSPORT AND DISPOSAL OF SOIL. Preburn composite soil samples were collected by Tetra Tech NUS, Inc. from the site for laboratory analysis prior to excavating the site. Preburn soil samples were composited from soil samples collected at different depth intervals. Soil samples were delivered to AccuTest Analytical Laboratories in Orlando, Florida, and analyzed for volatile organic aromatics (VOAs) (U.S. Environmental Protection Agency [USEPA] Method 8021), polynuclear aromatic hydrocarbons (PAHs) (USEPA Method 8310), total recoverable petroleum hydrocarbons (TRPH) using the Florida-Petroleum Residual Organics (FL-PRO) method and eight Resource Conservation and Recovery Act metals. Preburn laboratory analytical reports are included in Attachment B.

The petroleum-impacted soil was transported to Soil Treatment Services Inc. for thermal treatment. The Certificate of Materials Recycling and Post-Burn Analytical report are included in Attachment C.

2.4 SITE RESTORATION. The excavated was backfilled with clean fill material (light gray, fine sand) to surface grade in order to bring the site to the pre-existing grade (see photographs in Attachment A).



NTCB2426.SRR
 PMW.05.99

Table 2-1
Summary of Organic Vapor Analysis, February 25, 1999

Source Removal Report
 Building 2426, Main Base
 Naval Training Center
 Orlando, Florida

Soil Sample	Sample Depth (feet bls)	Unfiltered ¹ (ppm)	Filtered ² (ppm)	Total Hydrocarbons (ppm)	Physical Observations
A3	2	<1.0	<1.0	<1.0	
	4	25	5.0	20	
	6	80	15	65	strong petroleum odor
A4	2	<1.0	<1.0	<1.0	
	4	45	5.0	40	
	6	230	20	210	strong petroleum odor
B0	6	<1.0	<1.0	<1.0	
	2	<1.0	<1.0	<1.0	
	4	25	5.0	20	
B3	6	80	15	65	strong petroleum odor
	2	<1.0	<1.0	<1.0	
	4	45	5.0	40	
B4	6	230	20	210	strong petroleum odor
	2	<1.0	<1.0	<1.0	
	4	45	5.0	40	
C2	6	<1.0	<1.0	<1.0	

¹ Unfiltered sample readings are for total hydrocarbons, including methane.

² Filtered sample readings are for methane only.

Groundwater encountered approximately eight feet below ground surface.

Notes: <1 ppm indicates the nondetectable limit for Foxboro-128.

bls = below land surface.

ppm = parts per million.

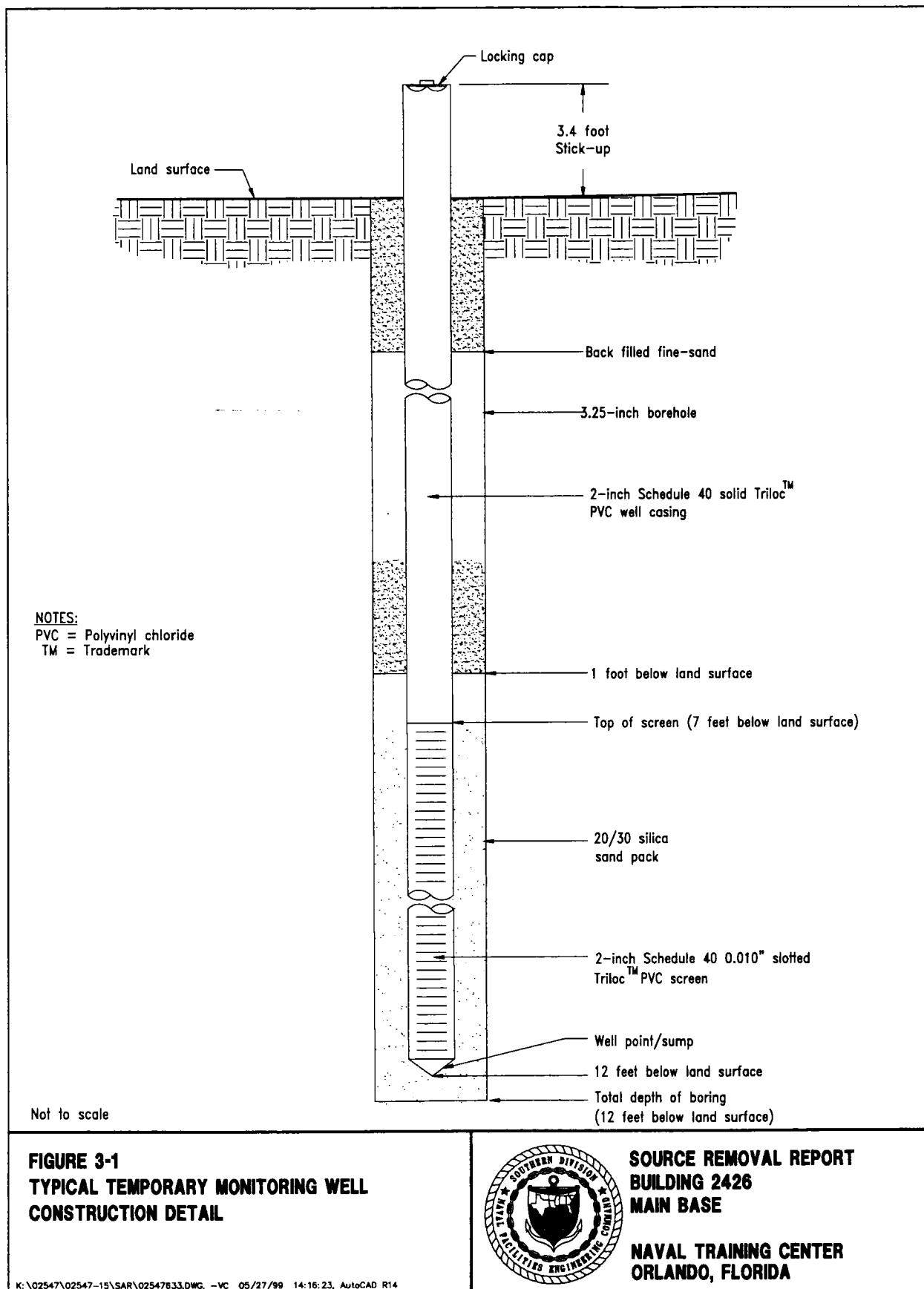
< = less than.

3.0 GROUNDWATER SAMPLING AND ANALYSIS

3.1 TEMPORARY WELL INSTALLATION. On April 21, 1999, one temporary monitoring well (TW-1A) was installed in the center of the former excavation after previous attempts to install a micro-well had failed. A stainless steel hand-auger was used to advance the borehole to approximately twelve feet bls. TW-1A was constructed using a ten foot section of 2.0-inch diameter, schedule 40 polyvinyl chloride (PVC) riser and a five foot section of 0.010-inch slot PVC well screen. The space between the screen and the borehole was filled with fine-sand and native soils. The well was developed using a peristaltic pump until the groundwater was sediment free. Construction details for TW-1A are shown on Figure 3-1.

3.2 GROUNDWATER SAMPLING AND ANALYSIS. On April 22, 1999, groundwater samples were collected from TW-1A. The groundwater samples were packed on ice and shipped to Savannah Laboratories, Inc. of Savannah, Georgia to be analyzed for volatile halocarbons (USEPA Method 601), VOAs (USEPA Method 602), TRPH (FL-PRO method), PAHs (USEPA Method 8310), 1,2-dibromoethane (EDB)(USEPA Method 504) and lead (USEPA Method 239.2).

Laboratory analytical results indicate several contaminant concentrations above laboratory detection limits in TW-1A, but below Chapter 62-770, FAC, Groundwater Cleanup Target Levels. Ethylbenzene was detected at 1.3 micrograms per liter ($\mu\text{g}/\ell$), total xylenes was reported at 5.4 $\mu\text{g}/\ell$, naphthalene was reported at 2.7 $\mu\text{g}/\ell$, and 1- and 2-methylnaphthalene were reported at 5.8 $\mu\text{g}/\ell$ and 3.9 $\mu\text{g}/\ell$, respectively. Groundwater sampling forms are included in Appendix D. The laboratory analytical report is included in Appendix E.



**FIGURE 3-1
TYPICAL TEMPORARY MONITORING WELL
CONSTRUCTION DETAIL**



**SOURCE REMOVAL REPORT
BUILDING 2426
MAIN BASE**

**NAVAL TRAINING CENTER
ORLANDO, FLORIDA**

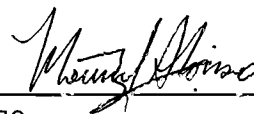
K:\02547\02547-15\SAR\02547633.DWG, -VC 05/27/99 14:16:23, AutoCAD R14

4.0 CONCLUSIONS AND RECOMMENDATIONS

On February 25, 1999, SRAs were conducted at Building 2426, Main Base, NTC, Orlando. A total of 52.7 tons of petroleum-impacted soil were excavated and transported to Soil Treatment Service Inc. for thermal treatment. Following excavation of the soil and back filling of the excavated area, a temporary monitoring well(TW-1A) was installed and sampled to assess the impact to the groundwater. Laboratory analytical results reported concentrations of contaminants above laboratory detection limits, but below Chapter 62-770, FAC, Groundwater Cleanup Target Levels. Based upon the groundwater laboratory analytical results, removal of the petroleum-impacted soil and information provided in the SAR for Building 2426 (ABB-ES,1998), HLA recommends a No Further Action Proposal for the site.

5.0 PROFESSIONAL REVIEW CERTIFICATION

This document, *Source Removal Report, Building 2426, McCoy Annex, Naval Training Center, Orlando, Florida*, has been prepared under the direction of a Professional Geologist registered in the State of Florida. The work and professional opinions rendered in this report were conducted or developed in accordance with commonly accepted procedures consistent with applicable standards of practice. This assessment is based on the geologic investigation and associated information detailed in the text and appended to this report or referenced in public literature. Recommendations are based upon interpretations of the applicable regulatory requirements, guidelines, and relevant issues discussed with regulatory personnel during the site investigation. If conditions that differ from those described that are determined to exist, the undersigned geologist should be notified to evaluate the effects of any additional information on this assessment or the recommendations made in this report. This report meets the criteria set forth in Chapter 492 of the Florida Statutes with regard to good professional practices as applied to Chapter 62-770, FAC. This SRR was developed for the Building 2426 site at the McCoy Annex, NTC, Orlando, in Orlando, Florida, and should not be construed to apply to any other site.



Manuel Alonso
Professional Geologist
P.G. No. 0001256

6/1/99

Date

REFERENCE

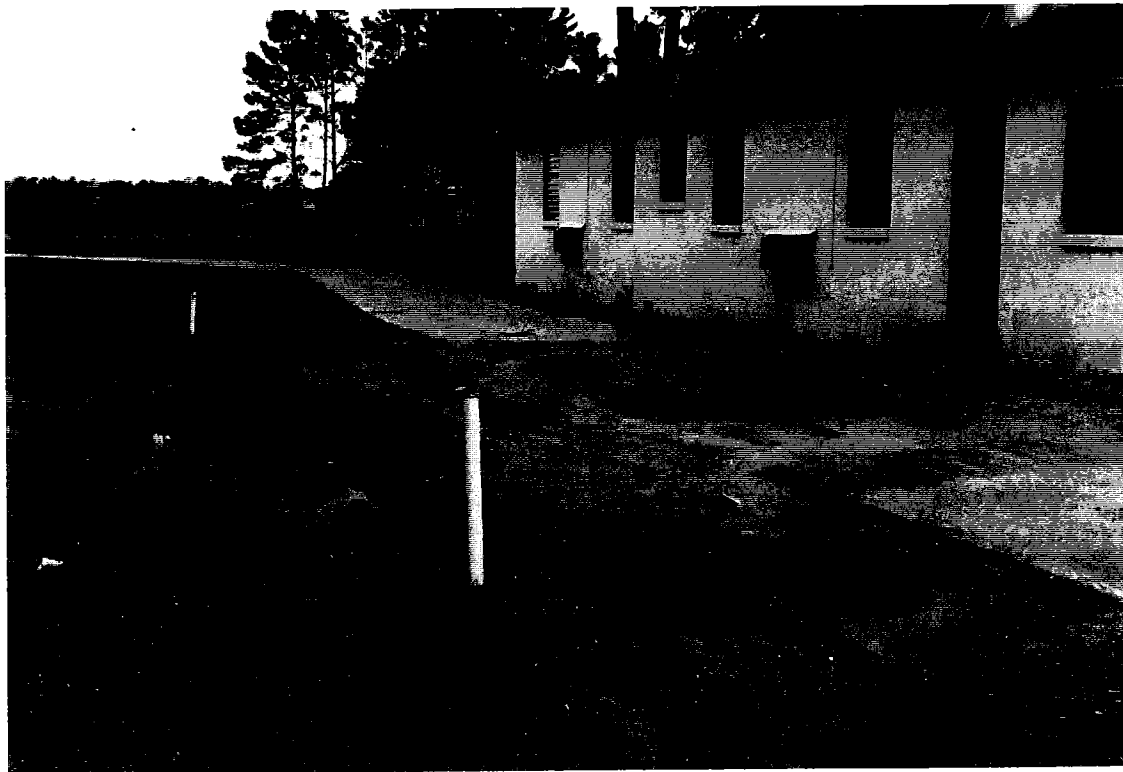
ABB Environmental Services, Inc. 1998. *Site Assessment Report, Building 2426, Main Base Naval Training Center, Orlando, Florida*. Prepared for Southern Division, Naval Facilities Engineering command, North Charleston, South Carolina (May).

ATTACHMENT A

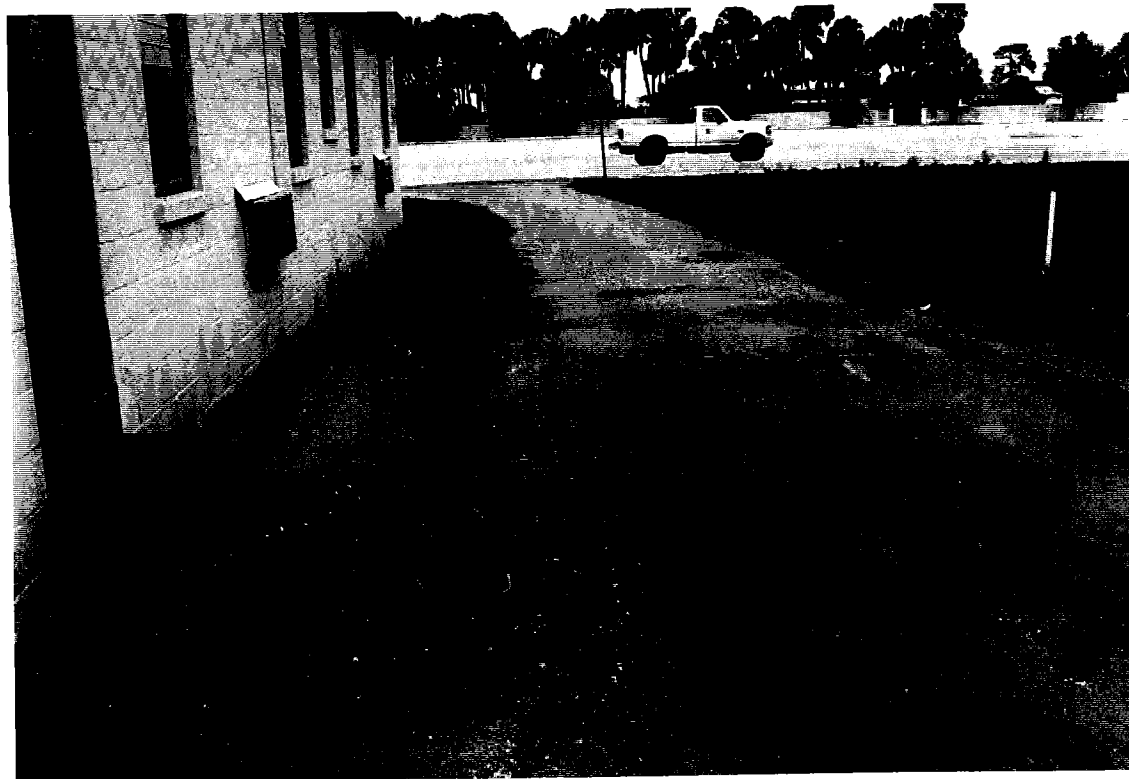
PHOTOGRAPHS



Photograph 1: Concrete material observed in the excavation associated with the former Building 7107.



Photograph 2: View of the capped and abandoned water line pipe encountered during the soil excavation.



Photograph 3: Stockpiled contaminated soil covered with plastic material.



Photograph 4: Building 7107 excavation area after backfill.

ATTACHMENT B

PREBURN LABORATORY ANALYTICAL REPORTS

Technical Report for

Tetra Tech, NUS

NTC Orlando


7781/CTO-0050

Accutest Job Number: F3661

Report to:

Tetra Tech, NUS
800 Oak Ridge Turnpike
Suite A-600
Oak Ridge, TN 37830
ATTN: Mike Campbell

Total number of pages in report:



Harry Behzadi, Ph.D.
Laboratory Director

Results relate only to the items tested.

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.



Sample Summary

Tetra Tech, NUS

Date: 02/17/99

NTC Orlando

Job No: F3661

Project No: 7781/CTO-0050

Sample Number	Collected Date	Time By	Received	Matrix Code Type	Client Sample ID
F3661-1	02/11/99	07:55 PC	02/11/99	SO Soil	7241-SB01-0304
F3661-2	02/11/99	13:35 PC	02/11/99	SO Soil	7151-SB12-0506
F3661-3	02/11/99	14:45 PC	02/11/99	SO Soil	2273-SB01
F3661-4	02/11/99	15:20 PC	02/11/99	SO Soil	2426-SB01-0304



Report of Analysis

Page 1 of 2

Client Sample ID: 2426-SB01-0304
Lab Sample ID: F3661-4
Matrix: SO - Soil
Method: SW846 8260B
Project: NTC Orlando

Date Sampled: 02/11/99
Date Received: 02/11/99
Percent Solids: 92.1

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K002682.D	50	02/15/99	RAW	n/a	n/a	VK46
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RDL	Units	Q
71-43-2	Benzene	ND	120	ug/kg	
75-27-4	Bromodichloromethane	ND	120	ug/kg	
75-25-2	Bromoform	ND	120	ug/kg	
108-90-7	Chlorobenzene	ND	120	ug/kg	
75-00-3	Chloroethane	ND	120	ug/kg	
67-66-3	Chloroform	ND	120	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	120	ug/kg	
56-23-5	Carbon tetrachloride	ND	120	ug/kg	
75-34-3	1,1-Dichloroethane	ND	120	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	120	ug/kg	
106-93-4	1,2-Dibromoethane	ND	120	ug/kg	
107-06-2	1,2-Dichloroethane	ND	120	ug/kg	
78-87-5	1,2-Dichloropropane	ND	120	ug/kg	
124-48-1	Dibromochloromethane	ND	120	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	120	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	120	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	120	ug/kg	
541-73-1	m-Dichlorobenzene	ND	120	ug/kg	
95-50-1	o-Dichlorobenzene	ND	120	ug/kg	
106-46-7	p-Dichlorobenzene	ND	120	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	120	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	120	ug/kg	
100-41-4	Ethylbenzene	ND	120	ug/kg	
74-83-9	Methyl bromide	ND	300	ug/kg	
74-87-3	Methyl chloride	ND	300	ug/kg	
75-09-2	Methylene chloride	ND	300	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	120	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	120	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	120	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	120	ug/kg	
127-18-4	Tetrachloroethylene	ND	120	ug/kg	
108-88-3	Toluene	ND	120	ug/kg	
79-01-6	Trichloroethylene	ND	120	ug/kg	
75-69-4	Trichlorofluoromethane	ND	120	ug/kg	
75-01-4	Vinyl chloride	ND	300	ug/kg	
1330-20-7	Xylene (total)	ND	360	ug/kg	

ND = Not detected

RDL = Reported Detection Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Report of Analysis

Page 2 of

Client Sample ID: 2426-SB01-0304
Lab Sample ID: F3661-4
Matrix: SO - Soil
Method: SW846 8260B
Project: NTC Orlando

Date Sampled: 02/11/99
Date Received: 02/11/99
Percent Solids: 92.1

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	K002682.D	50	02/15/99	RAW	n/a	n/a	VK46
Run #2							

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
2037-26-5	Toluene-D8	96%		81-117%
460-00-4	4-Bromofluorobenzene	106%		74-121%
17060-07-0	1,2-Dichloroethane-D4	95%		80-120%

(a) Dilution required due to matrix interference.

ND = Not detected
RDL = Reported Detection Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

**ACCUTEST.****Report of Analysis**

Page 1 of 1

Client Sample ID: 2426-SB01-0304
 Lab Sample ID: F3661-4
 Matrix: SO - Soil
 Method: SW846 3550B/8270C
 Project: NTC Orlando

Date Sampled: 02/11/99
 Date Received: 02/11/99
 Percent Solids: 92.1

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	L001099.D	4	02/12/99	NF	02/12/99	OP680	SL70
Run #2							

BN PAH List

CAS No.	Compound	Result	RDL	Units	Q
83-32-9	Acenaphthene	841	720	ug/kg	
208-96-8	Acenaphthylene	ND	720	ug/kg	
120-12-7	Anthracene	ND	720	ug/kg	
56-55-3	Benzo(a)anthracene	ND	720	ug/kg	
50-32-8	Benzo(a)pyrene	ND	360	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	720	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	720	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	720	ug/kg	
218-01-9	Chrysene	ND	720	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	360	ug/kg	
206-44-0	Fluoranthene	ND	720	ug/kg	
86-73-7	Fluorene	1030	720	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	720	ug/kg	
90-12-0	1-Methylnaphthalene	ND	720	ug/kg	
91-57-6	2-Methylnaphthalene	ND	720	ug/kg	
91-20-3	Naphthalene	ND	720	ug/kg	
85-01-8	Phenanthrene	561	720	ug/kg	J
129-00-0	Pyrene	2890	720	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	82%		25-121%
4165-62-2	Phenol-d5	86%		24-113%
118-79-6	2,4,6-Tribromophenol	78%		19-122%
4165-60-0	Nitrobenzene-d5	119%		23-120%
321-60-8	2-Fluorobiphenyl	78%		30-115%
1718-51-0	Terphenyl-d14	98%		18-137%

(a) Dilution required due to matrix interference.

ND = Not detected
 RDL = Reported Detection Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound



Report of Analysis

Page 1 of 1

Client Sample ID: 2426-SB01-0304
Lab Sample ID: F3661-4
Matrix: SO - Soil
Method: FLORIDA-PRO
Project: NTC Orlando

Date Sampled: 02/11/99
Date Received: 02/11/99
Percent Solids: 92.1

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	P03270.D	25	02/17/99	SKW	02/16/99	OP683	GOP157

CAS No.	Compound	Result	RDL	Units	Q
---------	----------	--------	-----	-------	---

	TPH (C8-C40)	8890	2300	mg/kg	
--	--------------	------	------	-------	--

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
---------	----------------------	--------	--------	--------

84-15-1	o-Terphenyl	0% ^a		40-140%
---------	-------------	-----------------	--	---------

(a) Outside control limits due to dilution.

ND = Not detected
RDL = Reported Detection Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method bla
N = Indicates presumptive evidence of a compound



Report of Analysis

Page 1 of 1

Client Sample ID: 2426-SB01-0304

Lab Sample ID: F3661-4

Matrix: SO - Soil

Date Sampled: 02/11/99

Date Received: 02/11/99

Percent Solids: 92.1

Project: NTC Orlando

Metals Analysis

Analyte	Result	RDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.32 B	1.1	mg/kg	1	02/15/99	02/17/99 JK	SW846 6010A
Barium	13.9 B	21.7	mg/kg	1	02/15/99	02/17/99 JK	SW846 6010A
Cadmium	0.02 B	0.43	mg/kg	1	02/15/99	02/17/99 JK	SW846 6010A
Chromium	2.0	1.1	mg/kg	1	02/15/99	02/17/99 JK	SW846 6010A
Lead	7.0 B	10.9	mg/kg	1	02/15/99	02/17/99 JK	SW846 6010A
Mercury	0.045 U	0.045	mg/kg	1	02/16/99	02/16/99 JK	SW846 7471A
Selenium	0.34 U	10.9	mg/kg	1	02/15/99	02/17/99 JK	SW846 6010A
Silver	0.09 U	1.1	mg/kg	1	02/15/99	02/17/99 JK	SW846 6010A

RDL = Reported Detection Limit

**ACCUTEST®**

CHAIN OF CUSTODY

4405 VINELAND ROAD • SUITE C-15
ORLANDO, FL 32811
TEL: 407-425-6700 • FAX: 407-425-0707

ACCUTEST JOB #:

ACCUTEST QUOTE #:

CLIENT INFORMATION

Tetra Tech NUS, Inc.
NAME
1211 Executive Center Dr., # 220
ADDRESS
Tallahassee FL 32301
CITY, STATE ZIP
Paul Calligan
SEND REPORT TO:
PHONE # (850) 656-5458

FACILITY INFORMATION

NTC Orlando UST
PROJECT NAME
Orlando, FL
LOCATION
7781 / CTO - 0050
PROJECT NO.
FAX # (850) 656-7403

ANALYTICAL INFORMATION

MATRIX CODES

DW - DRINKING
WATER
GW - GROUND
WATER
WW - WASTE
WATER
SO - SOIL
SL - SLUDGE
OI - OIL
LIQ - OTHER
LIQUID
SOL - OTHER
SOLID

ACCUTEST
SAMPLE #

FIELD ID / POINT OF COLLECTION

COLLECTION

DATE

TIME

SAMPLED
BY:

MATRIX

OF
BOTTLES

PRESERVATION

HCl

NaOH

HNO₃H₂SO₄

NONE

FL PRD, 8310

BRCA Metals

8021 (Encore samplers)

LAB USE ONLY

3661- 7241-SB01-0304
-2 7151-SB12-0506
-3 2273-S01
-4 2426-SB01-0304

2-11-99 0755 P.C. S 5
2-11-99 1335 P.C. S 5
2-11-99 1445 P.C. S 5
2-11-99 1520 P.C. S 5

1 1 3
1 1 3
1 1 3
1 1 3

DATA TURNAROUND INFORMATION

- ☐ STANDARD
☐ 48 HOUR RUSH
☒ 24 HOUR EMERGENCY
☐ OTHER 12 Hour

APPROVED BY: _____

EMERGENCY OR RUSH IS FAX DATA
UNLESS PREVIOUSLY APPROVED

DATA DELIVERABLE INFORMATION

- ☐ STANDARD
☐ COMMERCIAL "B"
☐ DISK DELIVERABLE
☐ STATE FORMS
☐ OTHER (SPECIFY) _____

COMMENTS/REMARKS

KR# 767

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

RELINQUISHED BY: ADDY PISANDATE TIME: 2-9-99 1050

RECEIVED BY: _____

RELINQUISHED BY: _____

DATE TIME: _____

RECEIVED BY: _____

RELINQUISHED BY: _____

DATE TIME: _____

RECEIVED BY: _____

RELINQUISHED BY: _____

DATE TIME: 2-11-99/16:39RECEIVED BY: ADDY Wilson

RELINQUISHED BY: _____

DATE TIME: _____

RECEIVED BY: _____

SEAL _____

PRESERVE WHERE APPLICABLE

ON ICE

TEMPERATURE

C

ATTACHMENT C

**POSTBURN LABORATORY ANALYTICAL REPORTS
AND CERTIFICATE OF MATERIALS RECYCLING**

#5448

#99-133

CERTIFICATE OF MATERIALS RECYCLING

WHEREAS, Soil Treatment Services Inc., is a corporation organized under the laws of the State of Florida with its principal place of business and Kissimmee, Florida and

WHEREAS, Soil Treatment Services Inc., operates a facility which uses, reuses and recycles various waste materials under the authority of the Florida Department of Environmental Regulation;

Now, Therefore, Soil Treatment Services Inc., does issue hereby this certificate to:

C.N.I., Inc.

P.O. Box 523

Ellenton, Fla. 34222

Job: Naval Training Center

McCoy Annex

Site #2426

Orlando, Fla.

To evidence the total use, reuse and recycling of 52.70 tons of soil contaminated with petroleum products. Service performed by incineration.

Said use, reuse and recycling has been completed in a manner consistent with acceptable engineering standards and in compliance with applicable rules and regulations set forth by State and Federal Authorities on or about the date stated:

SOIL TREATMENT SERVICES, INC.

March 8th, 1999

DATE

Larry A. Keene
Larry A. Keene, President

Seal

Sample Received From: Soil Treatment Services
3505 Pugmill Road
Kissimmee, FL 34741

Lab Control Number: 18546

Sample Name: March 8, 1999 Composite #1
Date Received: March 12, 1999
Date Reported: March 18, 1999

Parameter	Analysis Method	Reporting Units	Method Detection Limit	Analysis Date	Analyst	Result
Total Petroleum Hydrocarbons	FI-Pro	mg/kg	1.0	3/18/99	KB	24.1
Arsenic	7061	mg/kg	0.4	3/15/99	KB	<0.4
Barium	7080	mg/kg	0.025	3/15/99	KB	3.0
Cadmium	7131	mg/kg	0.05	3/15/99	KB	0.4
Chromium	7191	mg/kg	0.1	3/15/99	KB	1.70
Lead	7421	mg/kg	0.05	3/15/99	KB	5.5
Mercury	7471	mg/kg	0.001	3/15/99	KB	<0.001
Selenium	7740	mg/kg	0.5	3/15/99	KB	<0.5
Silver	7760	mg/kg	0.05	3/15/99	KB	0.56
Methyl-tert-butyl-ether	8021	ug/kg	1.4	3/15/99	KB	<1.4
Benzene	8021	ug/kg	0.9	3/15/99	KB	<0.9
Toluene	8021	ug/kg	0.7	3/15/99	KB	<0.7
Chlorobenzene	8021	ug/kg	1.7	3/15/99	KB	<1.7
Ethyl benzene	8021	ug/kg	0.8	3/15/99	KB	<0.8
m & p-Xylene	8021	ug/kg	1.6	3/15/99	KB	<1.6
o-Xylene	8021	ug/kg	0.8	3/15/99	KB	<0.8
m-Dichlorobenzene	8021	ug/kg	1.6	3/15/99	KB	<1.6
p-Dichlorobenzene	8021	ug/kg	1.6	3/15/99	KB	<1.6
o-Dichlorobenzene	8021	ug/kg	1.6	3/15/99	KB	<1.6
Total BTEX	8021	ug/kg	n/a	3/15/99	KB	<0.7

Data Release Authorization

The sample integrity and reliability was verified by Laboratory personnel prior to analysis. Analysis method used are in accordance with F.A.C. 62-160 and applicable EPA protocols. Laboratory Quality Assurance is in accordance with Bottorf Associates Comprehensive Quality Assurance Plan No. 910102.

Kent D. Bottorf
Laboratory Director

Kent D. Bottorf
Signature

3/18/99
Date

Sample Received From: Soil Treatment Services
3505 Pugmill Road
Kissimmee, FL 34741

Lab Control Number: 18546

Sample Name: March 8, 1999 Composite #1
Date Received: March 12, 1999
Date Reported: March 18, 1999

Parameter	Analysis Method	Reporting Units	Method Detection Limit	Analysis Date	Analyst	Result
Dichlorodifluoroethane	8021	ug/kg	1.2	3/15/99	KB	<1.2
Bromomethane	8021	ug/kg	1.7	3/15/99	KB	<1.7
Chloroethane	8021	ug/kg	2.5	3/15/99	KB	<2.5
1,1-Dichloroethene	8021	ug/kg	1.3	3/15/99	KB	<1.3
Methylene Chloride	8021	ug/kg	1.3	3/15/99	KB	<1.3
trans 1,2-Dichloroethylene	8021	ug/kg	1.1	3/15/99	KB	<1.1
1,1-Dichloroethane	8021	ug/kg	1.3	3/15/99	KB	<1.3
Chloroform	8021	ug/kg	1.0	3/15/99	KB	<1.0
1,1,1-Trichloroethane	8021	ug/kg	1.3	3/15/99	KB	<1.3
Carbon Tetrachloride	8021	ug/kg	1.1	3/15/99	KB	<1.1
Trichloroethylene	8021	ug/kg	1.8	3/15/99	KB	<1.8
1,2-Dichloropropane	8021	ug/kg	1.5	3/15/99	KB	<1.5
Bromodichloromethane	8021	ug/kg	9.0	3/15/99	KB	<9.0
cis 1,3-Dichloropropane	8021	ug/kg	1.2	3/15/99	KB	<1.2
trans 1,3-Dichloropropane	8021	ug/kg	1.4	3/15/99	KB	<1.4
1-Chloro 2-Bromomethane	8021	ug/kg	1.2	3/15/99	KB	<1.2
1,1,2-Trichloroethane	8021	ug/kg	1.3	3/15/99	KB	<1.3
Tertrachloroethylene	8021	ug/kg	1.1	3/15/99	KB	<1.1
Dibromochloromethane	8021	ug/kg	1.1	3/15/99	KB	<1.1
1,2-Dibromomethane	8021	ug/kg	1.4	3/15/99	KB	<1.4
Chlorobenzene	8021	ug/kg	3.8	3/15/99	KB	<3.8
1,1,1,2-Tetrachloroethane	8021	ug/kg	1.3	3/15/99	KB	<1.3

Sample Received From: Soil Treatment Services
3505 Pugmill Road
Kissimmee, FL 34741

Lab Control Number: 18546

Sample Name: March 8, 1999 Composite #1
Date Received: March 12, 1999
Date Reported: March 18, 1999

Parameter	Analysis Method	Reporting Units	Method Detection Limit	Analysis Date	Analyst	Result
Bromoform	8021	ug/kg	1.2	3/15/99	KB	<1.2
1,1,2,2-Tetrachlorethane	8021	ug/kg	1.0	3/15/99	KB	<1.0
1,2,3-Trichloropropane	8021	ug/kg	5.7	3/15/99	KB	<5.7
Bromobenzene	8021	ug/kg	1.1	3/15/99	KB	<1.1
4-Chlorotoluene	8021	ug/kg	1.4	3/15/99	KB	<1.4
m-Dichlorobenzene	8021	ug/kg	2.6	3/15/99	KB	<2.6
p-Dichlorobenzene	8021	ug/kg	2.5	3/15/99	KB	<2.5
o-Dichlorobenzene	8021	ug/kg	2.8	3/15/99	KB	<2.8
Total VOH	8021	ug/kg	n/a	3/15/99	KB	<9.0
8021 Dilution Factor	8021	x	n/a	n/a	n/a	1
Acenaphthene	8100	ug/kg	5.0	3/15/99	KB	<5.0
Acenaphthylene	8100	ug/kg	5.0	3/15/99	KB	<5.0
Anthracene	8100	ug/kg	5.0	3/15/99	KB	<5.0
Benzo(a)anthracene	8100	ug/kg	5.0	3/15/99	KB	<5.0
Benzo(a)pyrene	8100	ug/kg	5.0	3/15/99	KB	<5.0
Benzo(b)fluoranthene	8100	ug/kg	5.0	3/15/99	KB	<5.0
Benzo(ghi)perylene	8100	ug/kg	5.0	3/15/99	KB	<5.0
Benzo(k)fluoranthene	8100	ug/kg	5.0	3/15/99	KB	<5.0
Chrysene	8100	ug/kg	5.0	3/15/99	KB	<5.0
Dibenzo(a,h)anthracene	8100	ug/kg	5.0	3/15/99	KB	<5.0
Fluoranthene	8100	ug/kg	5.0	3/15/99	KB	<5.0
Fluorene	8100	ug/kg	5.0	3/15/99	KB	<5.0

Soil Analysis Report

6729 Edgewater Commerce Parkway · Orlando, Florida · 32810-4278 · Phone 407 298-0846 · Fax: 407 299-7053

Sample Received From: Soil Treatment Services
3505 Pugmill Road
Kissimmee, FL 34741

Lab Control Number: 18546

Sample Name: March 8, 1999 Composite #1
Date Received: March 12, 1999
Date Reported: March 18, 1999

Parameter	Analysis Method	Reporting Units	Method Detection Limit	Analysis Date	Analyst	Result
Indeno(1,2,3-cd)pyrene	8100	ug/kg	5.0	3/15/99	KB	<5.0
Naphthalene	8100	ug/kg	5.0	3/15/99	KB	<5.0
Phenanthrene	8100	ug/kg	5.0	3/15/99	KB	<5.0
Pyrene	8100	ug/kg	5.0	3/15/99	KB	<5.0
Total PAH	8100	ug/kg	n/a	n/a	n/a	<5.0
8100 Dilution Factor	8100	x	n/a	n/a	n/a	1



ATTACHMENT D
GROUNDWATER SAMPLING FORM



DEP Form # 62-770.900(3)

Form Title: Petroleum or Petroleum Products
Water Sampling Log

Effective Date September 23, 1997

Petroleum or Petroleum Products Water Sampling Log

FDEP FACILITY NO.:	WELL NO.: TW-1	SAMPLE ID:078GT101	DATE:4/22/99
SITE NAME: NTC ORLANDO – MAIN BASE	SITE LOCATION: BUILDING 2426		

PURGE DATA								
WELL DIAMETER (in): 2		TOTAL WELL DEPTH (ft): 11.95			DEPTH TO WATER (ft): 11.01		WELL CAPACITY (gal/ft): 0.16	
1 WELL VOLUME (gal) = (TOTAL WELL DEPTH – DEPTH TO WATER) x WELL CAPACITY = = (11.95 – 11.01) x 0.16 = 0.15								
PURGE METHOD: PERISTALTIC PUMP					PURGING INITIATED AT: 10:47		PURGING ENDED AT: 11:15	
WELL VOLS. PURGED	CUMUL. VOLUME PURGED (gal)	pH	TEMP. (°C)	COND. (µmhos)	PURGE RATE (gpm): 0.09		TOTAL VOLUME PURGED (gal): 2.5 GALLONS	
					COLOR	ODOR	APPEARANCE	TURBIDITY
INT	INT	6.83	24.6	600				>200
3.3	0.5	6.84	24.1	625				>200
8.33	1.25	6.62	24.1	600				>200
13.3	2.0	6.39	23.9	600				198.9
16.7	2.5	6.43	23.9	600				194.7

SAMPLING DATA						
SAMPLED BY / AFFILIATION CHRIS PISARRI AND MANUEL ALONSO					SAMPLER(S) SIGNATURE(S)	
SAMPLING METHOD(S): PERISTALTIC PUMP					SAMPLING INITIATED AT: 11:15	
					SAMPLING ENDED AT: 11:45	
FIELD DECONTAMINATION: N			FIELD-FILTERED: N		DUPLICATE: N	
SAMPLE CONTAINER SPECIFICATIONS			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (ml)	FINAL pH	
	CG					601/602
	CG					504 EDB
	AG					FL-PRO
	AG					8310
	O-PLASTIC					PB 239.2

REMARKS: PETROLEUM SHEEN OBSERVED ON THE PURGE WATER.

MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; HDP = HIGH DENSITY POLYETHYLENE; O = OTHER (SPECIFY)

WELL CAPACITY: 1.25" = 0.06 gal/ft; 2" = 0.16 gal/ft; 4" = 0.65 gal/ft; 6" = 1.47 gal/ft; 8" = 2.61 gal/ft; 12" = 5.88 gal/ft

NOTE: this does not constitute all the information required by Chapter 62-160, F.A.C.

ATTACHMENT E

**GROUNDWATER LABORATORY ANALYTICAL REPORTS
AND CHAIN-OF-CUSTODY RECORDS**

SL SAVANNAH LABORATORIES & ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue • Savannah, GA 31404 • (912) 354-7858 • Fax (912) 352-0165

LOG NO: S9-12609
Received: 23 APR 99
Reported: 11 MAY 99

Mr. Chris Pisarri
Harding Lawson Associates
1080 Woodcock Road
Orlando, FL 32803

Client PO. No.: NE753107G

Requisition: RFP#ATQ97-031
Contract No.: N62467-89-D-0317
Project: NTC Orlando-354/2547-06/SDG#ABOR33/Bldg 2426
Sampled By: Client
Code: 115690511

REPORT OF RESULTS

Page 1

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
12609-1	TW-1 078GT101	04-22-99/40500	ABOR33
PARAMETER	12609-1		
Purgeable Halocarbons (601)			
Bromodichloromethane, ug/l	1.00		
Bromoform, ug/l	5.00		
Bromomethane, ug/l	1.00		
Carbon tetrachloride, ug/l	1.00		
Chlorobenzene, ug/l	1.00		
Chloroethane, ug/l	1.00		
Chloroform, ug/l	1.00		
Chloromethane, ug/l	1.00		
Dibromochloromethane, ug/l	1.00		
1,2-Dichlorobenzene, ug/l	1.00		
1,3-Dichlorobenzene, ug/l	1.00		
1,4-Dichlorobenzene, ug/l	1.00		
Dichlorodifluoromethane, ug/l	1.00		
1,1-Dichloroethane, ug/l	1.00		
1,2-Dichloroethane, ug/l	1.00		
1,1-Dichloroethene, ug/l	1.00		
Cis/Trans-1,2-Dichloroethene, ug/l	1.00		
1,2-Dichloropropane, ug/l	1.00		
cis-1,3-Dichloropropene, ug/l	1.00		
trans-1,3-Dichloropropene, ug/l	1.00		
Methylene chloride (Dichloromethane), ug/l	5.00		
1,1,2,2-Tetrachloroethane, ug/l	1.00		

Bldg 2426

SL SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue • Savannah, GA 31404 • (912) 354-7858 • Fax (912) 352-0165

LOG NO: S9-12609
Received: 23 APR 99
Reported: 11 MAY 99Mr. Chris Pisarri
Harding Lawson Associates
1080 Woodcock Road
Orlando, FL 32803

Client PO. No.: NE753107G

Requisition: RFP#ATQ97-031
Contract No.: N62467-89-D-0317
Project: NTC Orlando-354/2547-06/SDG#ABOR33/Bldg 2426
Sampled By: Client
Code: 115690511

Page 2

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
12609-1	TW-1 078GT101	04-22-99/40500	ABOR33
PARAMETER	12609-1		
Tetrachloroethene, ug/l	1.0U		
1,1,1-Trichloroethane, ug/l	1.0U		
1,1,2-Trichloroethane, ug/l	1.0U		
Trichloroethylene, ug/l	1.0U		
Trichlorofluoromethane, ug/l	1.0U		
Vinyl chloride, ug/l	1.0U		
Surrogate - Bromochloromethane	84 %		
Date Analyzed	04.29.99		
Dilution factor	1.0		
Batch ID	1B0428B		
Purgeable Aromatics (602)			
Benzene, ug/l	1.0U		
Toluene, ug/l	1.0U		
Ethylbenzene, ug/l	1.3		
Total Xylenes, ug/l	5.4		
Methyl tert-butyl ether (MTBE), ug/l	10U		
Surrogate - a,a,a-Trifluorotoluene	97 %		
Date Analyzed	04.29.99		
Dilution factor	1.0		
Batch ID	1B0429A		

Bldg 2426

SL SAVANNAH LABORATORIES & ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue • Savannah, GA 31404 • (912) 354-7858 • Fax (912) 352-0165

LOG NO: S9-12609
Received: 23 APR 99
Reported: 11 MAY 99

Mr. Chris Pisarri
Harding Lawson Associates
1080 Woodcock Road
Orlando, FL 32803

Client PO. No.: NE753107G

Requisition: RFP#ATQ97-031
Contract No.: N62467-89-D-0317
Project: NTC Orlando-354/2547-06/SDG#ABOR33/Bldg 2426
Sampled By: Client
Code: 115690511

Page 3

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
12609-1	TW-1 078GT101	04-22-99/40500	ABOR33
PARAMETER	12609-1		
Polynuclear Aromatics (8310)			
Acenaphthene, ug/l	1.0U		
Acenaphthylene, ug/l	1.0U		
Anthracene, ug/l	0.20U		
Benzo(a)anthracene, ug/l	0.20U		
Benzo(a)pyrene, ug/l	0.20U		
Benzo(b)fluoranthene, ug/l	0.20U		
Benzo(g,h,i)perylene, ug/l	0.50U		
Benzo(k)fluoranthene, ug/l	0.20U		
Chrysene, ug/l	0.20U		
Dibenzo(a,h)anthracene, ug/l	0.20U		
Fluoranthene, ug/l	0.50U		
Fluorene, ug/l	0.50U		
Indeno(1,2,3-cd)pyrene, ug/l	0.20U		
Naphthalene, ug/l	2.7		
Phenanthrene, ug/l	0.21X		
Pyrene, ug/l	0.50U		
1-Methylnaphthalene, ug/l	5.8		
2-Methylnaphthalene, ug/l	3.9		
Surrogate - Terphenyl - d14	88 %		
Date Extracted	04.27.99		
Date Analyzed	04.29.99		
Dilution factor	1.0		
Batch ID	0427J		
Instrument ID	LCAUV		
Initial Volume/Weight	1000		
Final Extraction Volume (FV1)	1.0		

Bldg 2426

SL SAVANNAH LABORATORIES & ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue • Savannah, GA 31404 • (912) 354-7858 • Fax (912) 352-0165

LOG NO: S9-12609
Received: 23 APR 99
Reported: 11 MAY 99

Mr. Chris Pisarri
Harding Lawson Associates
1080 Woodcock Road
Orlando, FL 32803

Client PO. No.: NE753107G

Requisition: RFP#ATQ97-031
Contract No.: N62467-89-D-0317
Project: NTC Orlando-354/2547-06/SDG#ABOR33/Bldg 2426
Sampled By: Client
Code: 115690511

Page 4

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
12609-1	TW-1 078GT101	04-22-99/40500	ABOR33
PARAMETER	12609-1		
Lead (239.2)			
Lead, mg/l	0.0050U		
Preparation Date	04.26.99		
Date Analyzed	05.01.99		
Dilution factor	1.0		
Batch ID	0426J		
Petroleum Range Organics (FL-PRO)			
Petroleum Range Organics (FL-PRO), mg/l	0.30U		
Surrogate - O-Terphenyl (OTP)	47 %		
Dilution factor	1.0		
Date Extracted	04.27.99		
Date Analyzed	05.06.99		
Batch ID	0427U		
Initial Volume/Weight	1000		
Final Extraction Volume (FV1)	2.0		
Microextractables (504.1)			
1,2-Dibromoethane (EDB), ug/l	0.020U		
1,2-Dibromo-3-chloropropane, ug/l	0.020U		
Date Extracted	04.27.99		
Date Analyzed	04.28.99		
Initial Volume/Weight	39		
Final Extraction Volume (FV1)	2.0		

Bldg 2426

Serial Number 1. 286



☒ 5102 LaRoche Avenue, Savannah, GA 31404
☐ 2846 Industrial Plaza Drive, Tallahassee, FL 32301
☐ 1414 SW 12th Avenue, Deerfield Beach, FL 33442
☐ 1900 Lakeside Drive, Mobile, AL 36693
☐ 6712 Benjamin Road, Suite 100, Tampa, FL 33634
☐ 100 Alpha Drive, Suite 110, Destrehan, LA 70047

Phone: (912) 354-7858
Phone: (904) 878-3994
Phone: (954) 421-7400
Phone: (334) 666-6633
Phone: (813) 885-7427
Phone: (504) 764-1100

Fax: (912) 352-0165
Fax: (904) 878-9504
Fax: (954) 421-2584
Fax: (334) 666-6698
Fax: (813) 885-7049
Fax: (504) 725-1163

PROJECT REFERENCE		NTC Orlando		PROJECT NO.		02547.05		PO NUMBER		NE 7531076		MATRIX TYPE		REQUIRED ANALYSES										PAGE		OF							
PROJECT LOC (State)		FL		SAMPLER(S) NAME		Chris Pisarri		PHONE		(407) 895-8845		FAX		(407) 896-6150		<div>601/602</div> <div>8310</div> <div>504 EDB</div> <div>PB 239.2</div> <div>FIA-PRO</div>										<input checked="" type="checkbox"/> STANDARD REPORT DELIVERY		<input type="checkbox"/> EXPEDITED REPORT DELIVERY (surcharge)		Date Due			
CLIENT NAME		HLA		CLIENT PROJECT MANAGER		John Kaiser																											
CLIENT ADDRESS (CITY, STATE, ZIP)														32803																			
1080 Woodcock Rd, Suite 100														Orlando, FL																			
SAMPLE		SL NO.		SAMPLE IDENTIFICATION										NUMBER OF CONTAINERS SUBMITTED										REMARKS									
DATE		TIME		TW-1 078GT101										3 2 3 1 2																			
4/22/99		1115																															
RELINQUISHED BY (SIGNATURE)														DATE		TIME		RELINQUISHED BY (SIGNATURE)										DATE		TIME			
S. Campbell														4/23/99				Chris Pisarri										4/22/99					
RECEIVED BY (SIGNATURE)														DATE		TIME		RECEIVED BY (SIGNATURE)										DATE		TIME			
																		J. Swafford										4/23/99		9:07			
RECEIVED FOR LABORATORY BY: (SIGNATURE)														DATE		TIME		CUSTODY INTACT		CUSTODY SEAL NO.		SL LOG NO.		LABORATORY REMARKS:									
P. V. ...														4/23/99		9:07		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO				5912609											

NTC ORLANDO, FLORIDA -- MAIN BASE -- BUILDING 2426
GROUNDWATER ANALYTICAL DATA -- REPORT NO. 11096

Lab Sample Number: S912609-1
Site 2426
Locator TW-1 078GT101
Collect Date: 22-APR-99

VALUE QUAL UNITS DL

EPA 601

Bromodichloromethane	1 U	ug/l	1
Bromoform	5 U	ug/l	5
Bromomethane	1 U	ug/l	1
Carbon tetrachloride	1 U	ug/l	1
Chlorobenzene	1 U	ug/l	1
Chloroethane	1 U	ug/l	1
Chloroform	1 U	ug/l	1
Chloromethane	1 U	ug/l	1
Dibromochloromethane	1 U	ug/l	1
1,2-Dichlorobenzene	1 U	ug/l	1
1,3-Dichlorobenzene	1 U	ug/l	1
1,4-Dichlorobenzene	1 U	ug/l	1
Dichlorodifluoromethane	1 U	ug/l	1
1,1-Dichloroethane	1 U	ug/l	1
1,2-Dichloroethane	1 U	ug/l	1
1,1-Dichloroethene	1 U	ug/l	1
Cis/Trans-1,2-Dichloroethene	1 U	ug/l	1
1,2-Dichloropropane	1 U	ug/l	1
cis-1,3-Dichloropropene	1 U	ug/l	1
trans-1,3-Dichloropropene	1 U	ug/l	1
Methylene chloride	5 U	ug/l	5
1,1,2,2-Tetrachloroethane	1 U	ug/l	1
Tetrachloroethene	1 U	ug/l	1
1,1,1-Trichloroethane	1 U	ug/l	1
1,1,2-Trichloroethane	1 U	ug/l	1
Trichloroethylene	1 U	ug/l	1
Trichlorofluoromethane	1 U	ug/l	1
Vinyl chloride	1 U	ug/l	1

EPA 602

Benzene	1 U	ug/l	1
Toluene	1 U	ug/l	1
Ethylbenzene	1.3	ug/l	1
Xylenes (total)	5.4	ug/l	2
Methyl tert-butyl ether	10 U	ug/l	10

Polynuclear Aromatics (8310)

Acenaphthene	1 U	ug/l	1
Acenaphthylene	1 U	ug/l	1
Anthracene	.2 U	ug/l	.2
Benzo(a)anthracene	.2 U	ug/l	.2
Benzo(a)pyrene	.2 U	ug/l	.2
Benzo(b)fluoranthene	.2 U	ug/l	.2
Benzo(g,h,i)perylene	.5 U	ug/l	.5
Benzo(k)fluoranthene	.2 U	ug/l	.2
Chrysene	.2 U	ug/l	.2
Dibenzo(a,h)anthracene	.2 U	ug/l	.2
Fluoranthene	.5 U	ug/l	.5
Fluorene	.5 U	ug/l	.5
Ideno(1,2,3-cd)pyrene	.2 U	ug/l	.2

NTC ORLANDO, FLORIDA -- MAIN BASE -- BUILDING 2426
GROUNDWATER ANALYTICAL DATA -- REPORT NO. 11096

Lab Sample Number: S912609-1
Site 2426
Locator TW-1 078GT101
Collect Date: 22-APR-99

	VALUE	QUAL	UNITS	DL
Naphthalene	2.7		ug/l	1
Phenanthrene	.21 X		ug/l	.2
Pyrene	.5 U		ug/l	.5
1-Methylnaphthalene	5.8		ug/l	1
2-Methylnaphthalene	3.9		ug/l	1
Microextractables (504.1)				
Ethylene dibromide	.02 U		ug/l	.02
1,2-Dibromo-3-chloropropane	.02 U		ug/l	.02
Flo Pro				
Petroleum Range Organics (Fl-P)	.3 U		mg/l	.3
Lead	.005 U		mg/l	.005

U = NOT DETECTED J = ESTIMATED VALUE
X = SAMPLE HYDROCARBON PATTERN DID NOT CORRESPOND
TO REFERENCE PATTERN P = >25% DIFFERENCE IN 2 GC COLUMNS